(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 16 June 2005 (16.06.2005)

PCT

(10) International Publication Number WO 2005/054501 A1

(51) International Patent Classification⁷: G01N 33/543, B01J 19/00

C12Q 1/68,

(21) International Application Number:

PCT/EP2004/013379

(22) International Filing Date:

25 November 2004 (25.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03447275.3

28 November 2003 (28.11.2003) E

- (71) Applicant (for all designated States except US): PAM-GENE BV [NL/NL]; Nieuwstraat 30, NL-5211 NL 's-Hertogenbosch (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): VAN BEUNINGEN, Marinus, Gerardus, Johannes [NL/NL]; Polderkade 27, NL-5345 RR Oss (NL). BLOK, Herman, Jacobus [NL/BE]; Hobrugstraat 15, B-2470 Retie (BE).
- (74) Agents: DE CLERCQ, Ann et al.; De Clercq, Brants & Partners CV, E. Gevaertdreef 10A, B-9830 Sint-Martens-Latem (BE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND DEVICES FOR COMPOUND SCREENING

7O 2005/054501

(57) Abstract: The present invention relates methods for screening of compounds for drug candidates comprising: (a) providing a solid porous support having first and second surfaces and at least one area with a plurality of through-going channels wherein said solid porous support comprises compounds within predefined regions of the said support; wherein said compounds within the porous structure are stored in dried condition, wherein said dried condition is obtained after a drying treatment by slow evaporation, vacuum drying or by blowing air or inert gas above and below said solid support; (b) providing a liquid sample comprising at least one molecular target; (c) mixing said dried compounds of step (a) with said liquid sample of step (b) by flow of the sample through said predefined regions of the solid support through the said through-going channels; (d) screening said compounds for drug candidates; said screening is by monitoring in an assay a compound-target interaction by measurement of a signal, said signal indicating interaction between a compound and a molecular target; (e) optionally screening for a compound having a putative effect on a drug candidate identified in step (d). The present invention further relates to the uses of said methods and solid supports and methods for the manufacture of said solid supports for carrying out said methods as well as to the use of a porous support for the preparation of a kit for carrying out said methods.